

REMARKS

Claims 1-19 were examined. Claims 1-6 were rejected, while claims 7-19 were objected to for formal reasons and were not treated on the merits. In response to the above-identified Office Action, Applicants amend claims 1-19 and add new claim 20. Reconsideration of the rejected claims in light of the aforementioned amendments and the following remarks is requested.

I. Specification Objection

The Examiner objected to the specification because it contained hand-written page numbers. Applicants submit herewith a substitute specification containing typed page numbers. No new matter has been added, but software version differences have caused slight pagination variations. The amendment to the specification requested above has not been entered on the replacement specification. This is to clearly distinguish between the merely formal addition of typed page numbers and the requested addition to the text of the specification.

II. Claims Objections

The Examiner objected to claims 1-6 because of several informalities, and to claims 7-19 on the ground that each was a multiply-dependent claim depending from another multiply-dependent claim, or was a dependent of such a claim. Applicants have amended each of the claims to correct the noted informalities, and have modified each of claims 7-19 to depend from only one claim. The Examiner is respectfully requested to withdraw of these objections.

III. Claims Rejected Under 35 U.S.C. § 101

The Examiner rejected claims 1-6 under 35 U.S.C. § 101 as directed to non-statutory subject matter. Applicants have amended claim 1 to clarify that the claimed semantic network is implemented in a machine. Such a machine-implemented semantic network is believed to have the required technological basis, so withdrawal of this rejection is requested.

IV. Claims Rejected under 35 U.S.C. § 112, First Paragraph

The Examiner rejected claims 1-6 under 35 U.S.C. § 112, first paragraph, because such a rejection is allegedly mandatory when a rejection under § 101 is made. Although Applicants believe the quoted section of the MPEP may apply when a § 101 rejection on the grounds of lack of utility is made (*see* MPEP § 2107), and not when the § 101 rejection is made on the basis of non-statutory subject matter (*see* MPEP §§ 2106-07), to the extent that this § 112¶1 rejection is relevant, Applicants direct the Examiner's attention to pages 24 and 25 of the specification, where various practical applications of the invention are discussed. The invention could be used, for example, to change shapes and/or colors of graphic objects having associations among each other as a function of a respective existing situation. It could also be used for management of supply or disposal networks, robot-networked or agent-networked systems, automation in the field of man-machine communication, pattern recognition, simulation, management of on-line help for computer programs, and so on. The Examiner is respectfully requested to withdraw this rejection.

V. Claims Rejected Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claim 1 under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter Applicants regard as their invention. Claim 1 is amended to clarify the points mentioned by the Examiner: each semantic Janus unit is claimed to be capable of carrying out operations on at least one of itself or other semantic Janus units, at least one of semantic units to which it is linked or those to which these are in turn directly or indirectly linked, or the linking units of the said semantic units. Furthermore, the time-variable states are explained to determine what operations are to be carried out on at least one of what semantic units or linking units. The revised claim is believed to correct the indefiniteness indicated by the Examiner: it is implicitly clear that the time-variable states are not changed randomly, but the changes are based on rules. Applicants respectfully request the withdrawal of this rejection.

VI. Claims Rejected Under 35 U.S.C. § 102(b)

The Examiner rejected claims 1-6 under 35 U.S.C. § 102(b) as anticipated by "Semantic Networks and Associative Databases: Two Approaches to Knowledge

Representation and Reasoning” by Lim and Cherkassy (“*Lim*”). Applicants respectfully disagree that *Lim* teaches each and every limitation of claim 1 and its dependent claims, 2-6.

Claim 1 recites a machine implemented semantic network comprised of a multiplicity of units, which are related in particular ways, and which have certain capabilities. In particular, according to claim 1, the semantic network is changed by the Janus units, which are themselves units of the semantic network. The Janus units can add, modify or delete any unit in the semantic net, change the information content of any unit, or alter the topology of any partial network.

In contrast, *Lim* lacks such self-modification capabilities. According to *Lim*, there is the possibility that a semantic unit may be linked to another unit (for example, a semantic unit “has taste” could be linked via a linking unit with other semantic units “salty,” “sweet,” “sour” or “don’t know”) but new semantic units cannot be generated or removed. The material at *Lim* p. 34, second column, cited by the Examiner, only teaches that as a reaction to a predetermined request, a specific activation pattern of semantic units occurs and an answer is returned. No change in the semantic network itself is described, nor is there an element of *Lim*’s network that corresponds to the claimed Janus units.

Lim is largely concerned with the function or operation of a semantic network (in the sense of using the network to obtain an answer to a question), and not with the construction or modification of a network. On the latter point, note that *Lim*’s discussion of building a semantic network is cursory, and involves a developer assigning individual units to each item of knowledge and then constructing a network to model the domain’s knowledge structure. Although the construction is said to be “automated,” no details are provided. (See *Lim* at p. 38, right-hand column.)

Because *Lim* fails to disclose the claimed semantic Janus units, which are part of the semantic network and which are capable of carrying out operations on at least one of themselves or other semantic Janus units, the semantic units to which the Janus units are directly or indirectly linked, or the linking units; and also fails to disclose the time-variable states to determine what operations are to be carried out by the Janus units, Applicants respectfully submit that claim 1 is allowable over the cited reference, and ask the Examiner to withdraw this rejection.

Regarding claims 2-6, those claims depend directly or indirectly upon claim 1, and are patentable for at least the reasons discussed above in support of their base claim. Applicants request that the Examiner withdraw these rejections as well.

VII. New Claim

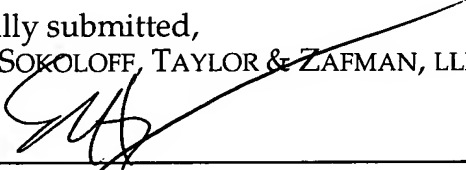
Applicants add new claim 20, which is intended to state the material of claim 1 in a clearer and more concise form, without adding new matter. Approval of the new claim is requested.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending, namely claims 1-20, patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

Dated: Oct. 4, 2005

Respectfully submitted,
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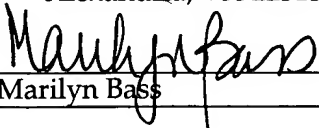
<p>12400 Wilshire Boulevard Seventh Floor Los Angeles, California 90025 (310) 207-3800</p>	<p style="text-align: center;"><u>CERTIFICATE OF MAILING</u></p> <p>I hereby certify that the correspondence is being deposited with the United States Postal Service, with sufficient postage, as first class mail in an envelope addressed to:</p> <p style="text-align: center;">Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450</p> <p> 10-04-05</p> <p>Marilyn Bass Date</p>
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Exhibit 1: Marked Version - Replacement Specification
Exhibit 2: Clean Version - Replacement Specification